

**Date**

PURPOSE

To understand magnetic fields

MATERIALS

steel wool pad
2 bar magnets with poles
labeled
sheet of white paper
old scissors
paper plate
science journal or notebook

Magnetic Fields

PROCEDURE

1. Using the old scissors, cut the steel wool pad into tiny pieces on the paper plate.
2. Place the magnet on a table and hold the paper just above it.
3. Sprinkle the steel wool onto the paper. Observe and draw the pattern created by the steel wool pieces.
4. Lift the paper up and away from the magnet. Shake gently and observe.
5. Place the paper above the magnet again and observe.
6. Move the paper away and return the steel wool pieces to the paper plate.
7. Place the second magnet near the first magnet with north and south poles (opposite poles) facing each other.
8. Repeat steps 3-6.
9. Now turn the magnets so that both north poles (like poles) are facing each other.
10. Repeat steps 3-6.

CONCLUSION

1. Where were the steel wool pieces concentrated when you used the single magnet? Why?
2. Describe the difference in the patterns created when the north and south poles were facing each other (step 7) and when both north poles were facing each other (step 9)? Why did the pattern change?

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.